Amendments t th Claims

1.(currently amended) A process of making a storage device comprising:

forming a first electrode ~~on~~ over a substrate;

forming a ~~ferroelectric~~ polymer structure over the substrate;

forming ~~an upper~~ a protective film over the ~~ferroelectric~~ polymer structure; and

forming a second electrode ~~on~~ over the ~~second~~ protective film, wherein the storage device is a non-optical storage device.

2.(currently amended) The process according to claim 1, wherein the ~~upper~~ protective film is a second protective film, and further comprising:

forming a first protective film on the first electrode.

3.(original) The process according to claim 2, wherein forming a first protective film on the first electrode further comprises:

forming a self-aligned first protective film over the first electrode.

Claim 4 (cancelled)

5.(original) The process according to claim 2, wherein the first protective film and the second protective film are formed by atomic layer chemical vapor deposition of materials selected from metals, refractory metals, their alloys, their nitrides, oxides, and carbides, and combinations thereof.

Claim 6 (cancelled)

7.(currently amended) The process according to claim 1, wherein forming a ~~ferroelectric~~ polymer structure further comprises:

Langmuir-Blodgett depositing a first crystalline ferroelectric polymer layer over the substrate;

forming a spin-on ferroelectric polymer layer over the first ferroelectric polymer layer, wherein the spin-on ferroelectric polymer layer is selected from polyvinyl and polyethylene fluorides, polyvinyl and polyethylene chlorides, polyacrylonitriles, polyamides, copolymers thereof, and combinations thereof;

Langmuir-Blodgett depositing a second crystalline ferroelectric polymer layer over the spin-on polymer layer; and

wherein the first and second crystalline ferroelectric polymer layers are selected from polyvinyl and polyethylene fluorides, polyvinyl and polyethylene chlorides, polyacrylonitriles, polyamides, copolymers thereof, and combinations thereof.

8.(original) The process according to claim 2, wherein forming the first and second protective films are accomplished by atomic layer chemical vapor deposition of a composition selected from titanium metal, titanium metal alloys, at least one titanium nitride, at least one titanium carbide, at least one titanium oxide, and combinations thereof.

9.(original) The process according to claim 1, wherein forming a first electrode is carried out by chemical vapor deposition, and forming a second electrode is carried out by physical vapor deposition.

10.(currently amended) The process according to claim 1, wherein forming a ~~ferroelectric~~ polymer structure over the substrate further comprises:

Langmuir-Blodgett depositing a single, crystalline ferroelectric polymer layer over the substrate.

11.(currently amended) A memory ~~article~~ comprising:

a first electrode disposed ~~on~~ over a substrate;

a ~~ferroelectric~~ polymer structure disposed over the substrate ~~and the first protective film~~;

~~an upper~~ a protective film disposed over the ~~ferroelectric~~ polymer structure; and

a second electrode disposed ~~above and on~~ over the ~~second~~ protective film, wh rein the memory is a non-optical memory.

12.(currently amended) The memory ~~article~~ according to claim 11, wherein the ~~upper~~ protective film is a second protective film, and further comprising:

a first protective film disposed on the first electrode.

Claim 13 (cancelled)

14.(currently amended) The memory ~~article~~ according to claim 11, wherein the ~~ferroelectric~~ polymer structure further comprises:

a first crystalline ferroelectric polymer layer disposed over the substrate, wherein the first crystalline ferroelectric polymer layer has a thickness in a range from about 5 Å to about 45 Å;

a spin-on ferroelectric polymer layer disposed over the first crystalline ferroelectric polymer layer, wherein the spin-on ferroelectric polymer layer has a thickness in a range from about 500 Å to about 2,000 Å; and

a second crystalline ferroelectric polymer layer disposed over the spin-on polymer layer, wherein the second crystalline ferroelectric polymer layer has a thickness in a range from about 5 Å to about 45 Å.

Claim 15 (cancelled)

16.(currently amended) The memory ~~article~~ according to claim 11, wherein the ~~ferroelectric~~ polymer structure further comprises:

a first crystalline ferroelectric polymer layer disposed over the substrate;

a spin-on polymer layer disposed over the first crystalline ferroelectric polymer layer;

a second crystalline ferroelectric polymer layer disposed over the spin-on polymer layer; and

wherein crystallinity of the first and second crystalline ferroelectric polymer layers is in a range from about one-third to greater than about one-half.

17.(currently amended) The memory ~~article~~ according to claim 11, wherein the ~~ferroelectric~~ polymer structure further comprises:

a single, crystalline ferroelectric polymer layer disposed over the substrate, wherein the single, crystalline ferroelectric polymer layer has a thickness in a range from about 100 Å to about 2,000 Å.

18.(currently amended) The memory ~~article~~ according to claim 11, wherein the ~~ferroelectric~~ polymer structure further comprises a polymer selected from polyvinyl and polyethylene fluorides, polyvinyl and polyethylene chlorides, polyacrylonitriles, polyamides, copolymers thereof, and combinations thereof.

Claims 19-26 (cancelled)

27.(currently amended) A wireless communication device ~~memory system~~ comprising:

~~a substrate disposed on a physical interface for a host;~~

a non-optical polymer memory ~~article disposed on the substrate~~, the non-optical polymer memory ~~article~~ comprising:

a first electrode disposed on a substrate;

a first protective film disposed ~~above and on~~ over the first electrode;

~~an FEP~~ a polymer structure disposed over ~~the substrate and~~ the first protective film;

a second protective film disposed over the ~~FEP~~ polymer structure; and

a second electrode disposed ~~above and on~~ over the second protective film;

~~a signal interface for communication from the memory article to the host;~~ ~~and~~

~~a host~~.

28.(currently amended) The wireless communication device ~~memory system~~ according to claim 27, wherein the non-optical polymer memory further comprises a physical interface and wherein the physical interface is configured to a host interface that is ~~selected from~~ a PCMCIA card interface, a compact flash card interface, a memory stick-type card interface, a desktop personal computer expansion slot interface, ~~and~~ or a removable medium interface.

29.(currently amend d) The wireless communication device ~~memory system~~ according to claim 27, wherein the ~~ferroelectric~~ polymer structure comprises:

a first crystalline ferroelectric polymer layer disposed over the substrate;

a spin-on ferroelectric polymer layer disposed over the first crystalline ferroelectric polymer layer; and

a second crystalline ferroelectric polymer layer disposed over the spin-on ferroelectric polymer layer.

30.(new) The wireless communication device of claim 27, wherein the first and second electrodes are non-transparent electrodes.

31.(new) The wireless communication device of claim 27, wherein the first electrode is a copper electrode or an aluminum electrode and the second electrode is a copper electrode or an aluminum electrode.

32.(new) The wireless communication device of claim 27, wherein the wireless communication device is a cellular telephone or a personal data assistant (PDA) with wireless communication ability.

33.(new) An polymer memory, comprising:

a first non-transparent electrode;

a polymer structure;

a first protective layer between the first non-transparent electrode and the polymer memory structure; and

a second non-transparent electrode coupled to the polymer memory structure.

34.(new) The polymer memory of claim 33, wherein the first non-transparent electrode comprises aluminum or copper.

35.(new) The polymer memory of claim 33, further comprising:

a second protective layer between the between the second non-transparent electrode and the polymer structure, wherein the second non-transparent electrode comprises aluminum or copper and wherein the second protective layer comprises titanium and nitride.

36.(new) The polymer memory of claim 33, further comprising a damascene structure comprising the first non-transparent electrode and the first protective layer.

37.(new) The polymer memory of claim 35, wherein the polymer structure comprises:

a first polymer layer coupled to the first protective layer;

a second polymer layer coupled to the first polymer layer; and

a third polymer layer coupled to the second polymer layer.

38.(new) The polymer memory of claim 33, wherein the polymer structure is a single, crystalline ferroelectric polymer layer having a thickness in a range from about 100 Å to about 2,000 Å.